

Clean Set of Amended Claims

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1. (Amended) A parts suction head of a surface mount device, comprising:
 - a motor configured for generating a rotary force and transmitting the rotatory force to a rotation central axis;
 - a ball spline unit configured for performing a rotation movement and a vertical reciprocation movement by the rotary force generated from the motor;
 - a rotation shaft unit comprising a rotation shaft, wherein the rotation shaft unit is configured to be moved in a vertical direction and rotated for sucking or mounting parts; and
 - a plurality of couplings configured for transmitting the rotary force of the rotation central axis to the ball spline unit and for transmitting a rotary force of the ball spline unit to the rotation shaft unit.
2. (Amended) The parts suction head of claim 1, wherein the plurality of couplings comprise:
 - a first coupling configured for connecting the rotation central axis of the motor to a first end portion of the ball spline unit; and
 - a second coupling configured for connecting a second end portion of the ball spline unit to the rotation shaft unit.

3. (Amended) The parts suction head of claim 2, wherein a first end portion of the ball spline unit comprises a ball spline nut and the first coupling is connected between the rotation central axis of the motor and the ball spline nut to maintain a predetermined distance m between the rotation central axis and the ball spline nut.

4. (Amended) The parts suction head of claim 2, wherein the second coupling is configured to maintain a predetermined distance m between the second end of the ball spline unit and the rotation shaft unit.

5. (Amended) The parts suction head of claim 1, further comprising a bearing fixed to the ball spline nut and configured to restrict a rotation radius of the rotation shaft unit.

B. Please add new claims 6-14 as follows:

6. (New) A parts suction head, comprising:

(117)
a rotation unit;

(120)
a ball spline unit;

(141)
a first coupling that rotationally couples the rotation unit to a first end of the ball
spline unit;

(130)
a rotation shaft configured to rotate and to move vertically in a reciprocal fashion;

and

(142)
a second coupling that rotationally couples a second end of the ball spline unit to
the rotation shaft.

7. (New) The parts suction head of claim 6, wherein the rotation unit comprises a
(119)
motor.

8. (New) The parts suction head of claim 6, further comprising a bearing mounted

✓✓ on the ball spline unit and configured to hold the ball spline unit in a fixed position, but to allow
the ball spline unit to rotate.

9. (New) The parts suction head of claim 8, wherein the bearing is configured to
align a rotational axis of the rotator unit with a rotational axis of the ball spline unit.

10. (New) The parts suction head of claim 6, wherein the first end of the ball spline unit comprises a ball spline nut, and the second end of the ball spline unit comprises a splined shaft. ⁽¹²⁰⁾

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11. (New) The parts suction head of claim 10, further comprising a bearing mounted on the ball spline nut and configured to hold the ball spline nut in a fixed position, but to allow the ball spline nut to rotate. ⁽¹²³⁾

12. (New) The parts suction head of claim 6, wherein the first coupling is configured to separate a lower end of the rotation unit from an upper end of the ball spline unit by a prescribed distance. ⁽¹⁴¹⁾

13. (New) The parts suction head of claim 6, wherein the second coupling is configured to separate a lower end of the ball spline unit from an upper end of the rotation shaft by a prescribed distance. ⁽¹⁴²⁾

14. (New) The parts suction head of claim 6, wherein the second coupling is configured to allow the rotation shaft to be detached from the ball spline unit.
